

Notice of Allowability

Application No.

09/641,035

Examiner

Insun Kang

Applicant(s)

WALLMAN, DAVID

Art Unit

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/10/2006.
2. ☒ The allowed claim(s) is/are 1, 3-10, 28, and 29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ramin Mahboubian (reg. 44,890) on 7/20/2006.

The application has been amended as follows:

Per claim 1:

In line 14: "would include" has been changed to --includes--.

In line 15: after "program instruction," --that has been previously interpreted and executed by the interpreter--has been added.

Per claim 28:

In line 1: "A computer system" has been changed to --An apparatus--.

In line 3: "the computer system is operable" has been changed to --the apparatus performs--.

In line 13: "would include" has been changed to --includes--.

In line 14: after "program instruction," --that has been previously interpreted and executed by the interpreter--has been added.

Per claim 29:

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In lines 14-15: "would include" has been changed to –includes--.

In line 15: after "program instruction," –that has been previously interpreted and executed by the interpreter—has been added.

These amendments were necessary in order to further clarify the claims and obviate any rejection under 35 U.S.C. 101.

Examiner's Statement of Reason(s) for Allowance

2. Claims 1, 3-10, 28, and 29 (renumbered as 1-11) are allowed.
3. The following is an examiner's statement of reason s for allowance:

The closest prior arts of record, i.e. Lethin, Walters, taken alone or in combination, fail to teach or fairly suggest at least: determining whether the virtual machine program instruction is a branch instruction...whether native code needed to execute the virtual machine program instructions is available in the code cache...copying the native code generated by the interpreter into the code cache after the interpreting of the virtual machine program instruction by the interpreter when said determining determines that the basic block associated with the case block of the interpreter is not present in the code cache as recited in the independent claims 1, 28, and 29.

While Lethin's interpreter profiles branch instructions of the source object code by storing a number executions for each branch instructions, Lethin does not determine whether the virtual machine program instruction is a branch instruction and copy the native code into the code cache after interpreting when the determining determines that the basic block associated with the case block of the interpreter is not present in the code cache.

While Walters discloses a cross-compiler converting non-native code into native code and storing cross-compiled code and a hash table for locating code blocks in the code cache, Waters does not disclose determining, by the interpreter, determining whether the virtual machine program instruction is a branch instruction and copying the native code into the code cache after interpreting when the determining determines that the basic block associated with the case block of the interpreter is not present in the code cache.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-F 7:30-4 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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